# FEE TRANSMITTAL

Patent fees are subject to annual revision

☐ Applicant claims small entity status. See 37 CFR 1.27

TOTAL AMOUNT OF PAYMENT ($) 500.00

| Complete if Known | |
|---|---|
| Application Number | 10/649,999 |
| Filing Date | August 26, 2003 |
| First Named Inventor | Jheroen P. Dorenbosch |
| Examiner Name | Fox, Bryan J |
| Group Art Unit | 2686 |
| Attorney Docket No. | CE10990JI121 |

## METHOD OF PAYMENT (check all that apply)

☐ Check ☐ Credit card ☐ Money Order ☐ Other ☐ None

☒ Deposit Account:

Deposit Account Number: 502117

Deposit Account Name: Motorola, Inc.

The Director is authorized to: (check all that apply)

☒ Charge fee(s) indicated below ☒ Credit any overpayments

☒ Charge any additional fee(s) during the pendency of this application

☐ Charge fees(s) indicated below, except for the filing fee to the above-identified deposit account.

## FEE CALCULATION

### 1. BASIC FILING FEE

| Large Entity Fee Code | Large Entity Fee ($) | Small Entity Fee Code | Small Entity Fee ($) | | Fee Paid |
|---|---|---|---|---|---|
| 1001 | 790 | 2001 | 395 | Utility filing fee | |
| 1002 | 350 | 2002 | 175 | Design filing fee | |
| 1003 | 550 | 2003 | 275 | Plant filing fee | |
| 1004 | 790 | 2004 | 395 | Reissue filing fee | |
| 1005 | 160 | 2005 | 80 | Provisional filing fee | |

SUBTOTAL (1) ($) 0

### 2. EXTRA CLAIM FEES

| | | Previously Paid** | | Extra Claims | | Fee from Below | | Fee Paid |
|---|---|---|---|---|---|---|---|---|
| Total Claims | | - 20 | = | | X | 18 | = | |
| Independent Claims | | - 3 | = | | X | 88 | = | |
| Multiple Dependent | | | | | | 300 | = | |

| Large Entity Fee Code | Large Entity Fee ($) | Small Entity Fee Code | Small Entity Fee ($) | Fee Description |
|---|---|---|---|---|
| 1202 | 18 | 2202 | 9 | Claims in excess of 20 |
| 1201 | 88 | 2201 | 44 | Independent claims in excess of 3 |
| 1203 | 300 | 2203 | 150 | Multiple dependent claim, if not paid |
| 1204 | 88 | 2204 | 44 | * Reissue independent claims over original patent |
| 1205 | 18 | 2205 | 9 | *Reissue claims in excess of 20 and over original Patent |

SUBTOTAL (2) ($) 0

**or number previously paid, if greater; For Reissues, see above.

## FEE CALCULATION (continued)

### 3. ADDITIONAL FEES

COPY

| Large Entity Fee Code | Large Entity Fee ($) | Small Entity Fee Code | Small Entity Fee ($) | Fee Description | |
|---|---|---|---|---|---|
| 1051 | 130 | 2051 | 65 | Surcharge – late filing fee or oath | |
| 1052 | 50 | 2052 | 25 | Surcharge – late Provisional filing | |
| 1053 | 130 | 1053 | 130 | Non-English specification | |
| 1812 | 2520 | 1812 | 2520 | For filing a request for ex parte Reexamination | |
| 1804 | 920* | 1804 | 920* | Requesting publication of SIR prior to Examiner action | |
| 1805 | 1840* | 1805 | 1840* | Requesting publication of SIR after Examiner action | |
| 1251 | 110 | 2251 | 55 | Extension for reply within first month | |
| 1252 | 430 | 2252 | 215 | Extension for reply within second month | |
| 1253 | 980 | 2253 | 490 | Extension for reply within third month | |
| 1254 | 1530 | 2254 | 765 | Extension for reply within fourth month | |
| 1255 | 2080 | 2255 | 1040 | Extension for reply within fifth month | |
| 1401 | 340 | 2401 | 170 | Notice of Appeal | |
| 1402 | 340 | 2402 | 170 | Filing a brief in support of an appeal | 500.00 |
| 1403 | 300 | 2403 | 150 | Request for oral hearing | |
| 1451 | 1510 | 1451 | 1510 | Petition to institute a public use proceeding | |
| 1452 | 110 | 2452 | 55 | Petition to revive – unavoidable | |
| 1453 | 1370 | 2453 | 685 | Petition to revive – unintentional | |
| 1501 | 1370 | 2501 | 685 | Utility issue fee (or reissue) | |
| 1502 | 490 | 2502 | 245 | Design issue fee | |
| 1503 | 660 | 2503 | 330 | Plant issue fee | |
| 1460 | 130 | 1460 | 130 | Petitions to the Commissioner | |
| 1807 | 50 | 1807 | 50 | Processing fee under 37 CFR 1.17(q) | |
| 1806 | 180 | 1806 | 180 | Submission of IDS | |
| 8021 | 40 | 8021 | 40 | Recording each patent assignment Per property (times number of properties) | |
| 1809 | 790 | 2809 | 395 | Filing a submission after final rejection (37 CFR § 1.129(a)) | |
| 1810 | 790 | 2810 | 395 | For each additional invention to be examined (37 CFR § 1.129(b)) | |
| 1801 | 790 | 2801 | 395 | Request for Continued Examination (RCE) | |
| 1802 | 900 | 1802 | 900 | Request for expedited examination of a design application | |

Other fee (specify)

SUBTOTAL (3) ($) 500.00

* Reduced by Basic Filing Fee Paid

## SUBMITTED BY

Complete (if applicable)

| Name (Print/Type) | Larry G. Brown | Registration No. | 45,834 | Telephone | 954-723-4295 |
|---|---|---|---|---|---|
| Signature | | Date | May 25, 2006 | | |

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MAY 25 2006

MOTOROLA

# FAX TRANSMITTAL SHEET

Motorola, Inc.
Law Department – MD 1610
8000 W. Sunrise Blvd.
Plantation, FL 33322
Telephone: (954) 723-6449
Fax: (954) 723-3871

54 Number of Pages (including this page)

| | |
|---|---|
| Date: | May 25, 2006 |
| To Examiner: | Fox, Bryan J |
| Location: | United States Patent and Trademark Office |
| Fax No.: | **Centralized Fax Number: 1 (571) 273-8300** |
| From: | Larry G. Brown - Registration No. 45,834 |
| Attorney's Docket No. | CE10990JI121 – Dorenbosch, et al. Confirmation No. 6041 |



MESSAGE:

In connection with the above-identified Patent Application, please find attached herewith the following documents:

- 1 page Transmittal Form;
- 1 page Fee Transmittal (in duplicate);
- 2 pages Transmittal Letter for Appeal Brief (in duplicate);
- 32 pages Appeal Brief; and
- 16 pages Materials in Support of Appeal Brief

## PLEASE DELIVER THESE PAPERS TO:

| | |
|---|---|
| EXAMINER: | **Fox, Bryan J** |
| GROUP ART UNIT: | 2686 |
| SERIAL NO.: | 10/649,999 |
| FILED: | August 26, 2003 |
| INVENTOR: | JHEROEN P. DORENBOSCH |

**CERTIFICATE OF FAX TRANSMITTAL**

I hereby certify that this correspondence is being facsimile to the United States Patent and Trademark Office at (571) 273-8300 Centralized Facsimile, addressed to :Mail Stop: APPEAL BRIEF-PATENTS, Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450 on the date listed below:

Date: May 25, 2006

Signature: _____
Printed Name: Larry G. Brown

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# TRANSMITTAL FORM

(to be used for all correspondence after initial filing)

| | |
|---|---|
| Total Number of Pages in this Submission | 53 |

| | |
|---|---|
| Application Number | 10/649,999 |
| Filing Date | August 26, 2003 |
| First Named Inventor | Jheroen P. Dorenbosch |
| Group Art Unit | 2686 |
| Examiner Name | Fox, Bryan J |
| Attorney Docket Number | CE10990JI121 |

## ENCLOSURES (check all that apply)

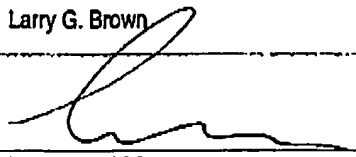
- [X] Fee Transmittal Letter
  - [ ] Fee Attached
- [ ] Amendment/Reply
  - [ ] After Final
- [ ] Affidavits/Declaration(s)
- [ ] Extension of time Request
- [ ] Express Abandonment Request
- [ ] Information Disclosure Statement
- [ ] Certified Copy of Priority Documents
- [ ] Response to Missing Parts/ Incomplete Application
  - [ ] Response to Missing Parts Under 37 CFR 1.52 or 1.53
- [ ] Assignment Papers (for an Application)
- [ ] Drawing(s)
- [ ] Licensing-Related papers
- [ ] Petition
- [ ] Petition to Convert to a Provisional Application
- [ ] Power of Attorney, Revocation, Change of Correspondence Address
- [ ] Terminal Disclaimer
- [ ] Request for Refund
- [ ] CD, Number of CDs

Remarks

X Facsimile Transmittal

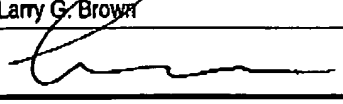
- [ ] After Allowance Communication to Group
- [ ] Appeal Communication to Board of Appeals and Interferences
- [X] Appeal Communication to Group (Appeal Notice, Brief, Reply Brief)
- [ ] Proprietary Information
- [ ] Status Letter with appropriate copies
- [X] Other Enclosure(s) (please identify below)
  - ☒ Transmittal Letter for Brief on Appeal
  - ☒ Materials in Support of Appeal Brief

## SIGNATURE OF APPLICANT, ATTORNEY, OR AGENT

| | | | |
|---|---|---|---|
| Firm or Individual | Larry G. Brown | Registration No. | 45,834 |
| Signature |  | | |
| Date | May 25, 2006 | | |

## CERTIFICATE OF TRANSMITTAL/MAILING

I hereby certify that this correspondence is being facsimile transmitted to facsimile number 571-273-8300 or deposited with the United States Postal Service with sufficient postage thereon, as first-class mail, in an envelope addressed to: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313 on the date listed below:

| | | | |
|---|---|---|---|
| Typed or printed name | Larry G. Brown | | |
| Signature |  | Date | May 25, 2006 |

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**UNITED STATES PATENT AND TRADEMARK OFFICE**

| | | | |
|---|---|---|---|
| APPLICANT(S) | Jheroen P. Dorenbosch | CONFIRMATION NO.: | 6041 |
| APPLN. NO.: | 10/649,999 | EXAMINER: | Fox, Bryan J |
| FILED: | August 26, 2003 | GROUP ART UNIT: | 2686 |
| DOCKET NO. | CE10990JI121 | | |
| TITLE: | SYSTEM AND METHOD TO IMPROVE WLAN HANDOVER BEHAVIOR AND PHONE BATTERY LIFE WHEN STATIONARY IN BORDER CELLS | | |

| CERTIFICATE OF FAX TRANSMITTAL | |
|---|---|
| I hereby certify that this correspondence is being facsimile to the United States Patent and Trademark Office, at (571) 273-8300 Centralized Facsimile, addressed to: Mail Stop: APPEAL BRIEF-PATENTS, Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450 on the date listed below: | |
| Date: | May 25, 2006 |
| Signature: Typed or Printed Name: | Larry Brown |

# TRANSMITTAL LETTER FOR BRIEF ON APPEAL

Mail Stop: **APPEAL BRIEF-PATENTS**
P.O. Box 1450
Alexandria, VA 22313-1450

Sir:

Enclosed please find one copy of an Appeal Brief filed on behalf of the applicants in the matter of the above entitled application. This Brief is filed pursuant to 37 CFR § 1.192 and following the Final Rejection dated February 9, 2006 and the Notice of Appeal filed by Applicant on May 25, 2006.

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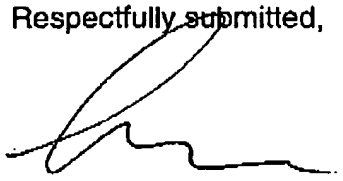
MAY 25 2006

The Commissioner is authorized to charge the $500.00 requisite fee for filing the enclosed Brief to Motorola, Inc., Deposit Account No. 502117. Any overpayment should be credit to the same Deposit Account.

Respectfully submitted,



By: Larry G. Brown
Attorney of Record
Reg. No. 45,834
Telephone: (954) 723-4295
Fax No.: (954) 723-3871

SEND CORRESPONDENCE TO:

Motorola, Inc.

Customer Number: 24273

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MAY 2 5 2006

**UNITED STATES PATENT AND TRADEMARK OFFICE**

| | | | |
|---|---|---|---|
| APPLICANT(S) | Jheroen P. Dorenbosch | CONFIRMATION NO.: | 6041 |
| APPLN. NO.: | 10/649,999 | EXAMINER: | Fox, Bryan J |
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|---|---|
| I hereby certify that this correspondence is being facsimile to the United States Patent and Trademark Office, at (571) 273-8300 Centralized Facsimile, addressed to: Mail Stop: APPEAL BRIEF-PATENTS, Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450 on the date listed below: | |
| Date: | May 25, 2006 |
| Signature: Typed or Printed Name: | Larry Brown |

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COPY

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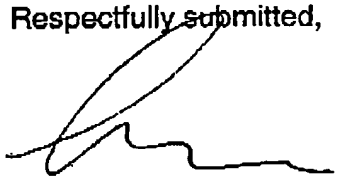
Respectfully submitted,



By: Larry G. Brown
Attorney of Record
Reg. No. 45,834
Telephone: (954) 723-4295
Fax No.: (954) 723-3871

SEND CORRESPONDENCE TO:

Motorola, Inc.

Customer Number: 24273

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MAY 25 2006

# FEE TRANSMITTAL

Patent fees are subject to annual revision

☐ Applicant claims small entity status. See 37 CFR 1.27

TOTAL AMOUNT OF PAYMENT ($) 500.00

| Complete If Known | |
|---|---|
| Application Number | 10/649,999 |
| Filing Date | August 26, 2003 |
| First Named Inventor | Jheroen P. Dorenbosch |
| Examiner Name | Fox, Bryan J |
| Group Art Unit | 2686 |
| Attorney Docket No. | CE10990JI121 |

## METHOD OF PAYMENT (check all that apply)

☐ Check ☐ Credit card ☐ Money Order ☐ Other ☐ None

☒ Deposit Account:

Deposit Account Number: 502117
Deposit Account Name: Motorola, Inc.

The Director is authorized to: (check all that apply)

☒ Charge fee(s) indicated below ☒ Credit any overpayments

☒ Charge any additional fee(s) during the pendency of this application

☐ Charge fees(s) indicated below, except for the filing fee to the above-identified deposit account.

## FEE CALCULATION

### 1. BASIC FILING FEE

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| 1004 | 790 | 2004 | 395 | Reissue filing fee | |
| 1005 | 160 | 2005 | 80 | Provisional filing fee | |

SUBTOTAL (1) ($) 0

### 2. EXTRA CLAIM FEES

| | | Previously Paid** | | Extra Claims | | Fee from Below | | Fee Paid |
|---|---|---|---|---|---|---|---|---|
| Total Claims | | 20 | = | | X | 18 | = | |
| Independent Claims | | 3 | = | | X | 88 | = | |
| Multiple Dependent | | | | | | 300 | = | |

| Large Entity Fee Code | Large Entity Fee ($) | Small Entity Fee Code | Small Entity Fee ($) | Fee Description |
|---|---|---|---|---|
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| 1204 | 88 | 2204 | 44 | * Reissue independent claims over original patent |
| 1205 | 18 | 2205 | 9 | *Reissue claims in excess of 20 and over original Patent |

SUBTOTAL (2) ($) 0

**or number previously paid, if greater; For Reissues, see above.

## FEE CALCULATION (continued)

### 3. ADDITIONAL FEES

| Large Entity Fee Code | Large Entity Fee ($) | Small Entity Fee Code | Small Entity Fee ($) | Fee Description | |
|---|---|---|---|---|---|
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| 1810 | 790 | 2810 | 395 | For each additional invention to be examined (37 CFR § 1.129(b)) | |
| 1801 | 790 | 2801 | 395 | Request for Continued Examination (RCE) | |
| 1802 | 900 | 1802 | 900 | Request for expedited examination of a design application | |

Other fee (specify)

SUBTOTAL (3) ($) 500.00

* Reduced by Basic Filing Fee Paid

## SUBMITTED BY

| Name (Print/Type) | Larry G. Brown | Registration No. | 45,834 | Telephone | 954-723-4295 |
|---|---|---|---|---|---|
| Signature | | Date | May 25, 2006 | | |

Complete (if applicable)

Application No. 10/649,999
Appeal Brief dated May 25, 2006

CE10990JI121

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE
BEFORE THE BOARD OF PATENT APPEALS AND INTERFERENCES

| | | | |
|---|---|---|---|
| APPLICANT: | Fox, Bryan J | ART UNIT: | 2642 |
| APPLN. NO.: | 10/649,999 | EXAMINER: | Fox, Bryan J |
| FILED: | August 26, 2003 | | |
| TITLE: | SYSTEM AND METHOD TO IMPROVE WLAN HANDOVER AND PHONE BATTERY LIFE WHEN STATIONARY IN BORDER CELLS | | |

| CERTIFICATE OF FAX TRANSMITTAL | |
|---|---|
| I hereby certify that this correspondence is being facsimile to the United States Patent and Trademark Office, at (571) 273-8300 Centralized Facsimile, addressed to: Mail Stop: APPEAL BRIEF-PATENTS, Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450 on the date listed below: | |
| Date: | May 25, 2006 |
| Signature: Typed or Printed Name: | Larry G. Brown |

## APPEAL BRIEF

Mail Stop: **APPEAL BRIEF-PATENTS**
Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

Attention: Board of Patent Appeals and Interferences

Dear Chief Administrative Patent Judge:

This Appeal Brief is in furtherance of the Notice of Appeal transmitted via facsimile on May 25, 2006.

The fees required under 37 C.F.R. § 1.17(c) for filing this Appeal Brief have been authorized in the accompanying forms.

This brief is being transmitted by facsimile pursuant to 37 C.F.R. § 1.6(d).

This brief contains items under the headings listed in the following Table of Contents, as set forth in 37 C.F.R. § 1.192(c).

## TABLE OF CONTENTS

## I. REAL PARTY IN INTEREST

The real party of interest is Motorola, Inc., a Delaware corporation.

## II. RELATED APPEALS AND INTERFERENCES

There are no related appeals or interferences.

## III. STATUS OF CLAIMS

This is an appeal from the final rejection of claims 1-23 and 25-30 of the above-referenced application.

### A. TOTAL NUMBER OF CLAIMS IN APPLICATION

There are a total of 29 claims in the application.

### B. STATUS OF ALL THE CLAIMS

1. Claims allowed: none
2. Claims objected to: none
3. Claims rejected: 1-23 and 25-30

### C. CLAIMS ON APPEAL

The claims on appeal are: 1-23 and 25-30.

## IV. STATUS OF AMENDMENTS

A Final Rejection was mailed on February 9, 2006 in response to an Amendment filed on November 7, 2005. The Amendment and arguments were considered by the Examiner but were deemed unpersuasive and moot in view of

new grounds of rejection. Applicants faxed a Notice of Appeal on May 25, 2006. This Appeal Brief is submitted in support of the Notice of Appeal.

## V. SUMMARY OF THE CLAIMED INVENTION

Although specification citations are inserted below in accordance with C.F.R. 1.192(c), these reference numerals and citations are merely examples of where support may be found in the specification for the terms used in this section of the brief. There is no intention to in any way suggest that the terms of the claims are limited to the examples in the specification. Although, as demonstrated by the reference numerals and citations below, the claims are fully supported by the specification as required by law, it is improper under the law to read limitations from the specification into the claims. Pointing out specification support for the claim terminology, as is done here to comply with rule 1.192(c), does not in any way limit the scope of the claims to those examples from which they find support. Nor does this exercise provide a mechanism for circumventing the law precluding reading limitations into the claims from the specification. In short, the reference numerals and specification citations are not to be construed as claim limitations or in any way used to limit the scope of the claims.

The claimed subject matter pertains to a method (700, 800, 900, 1000, 1100) and mobile subscriber unit (306) for improving handover between different communications systems and the battery life of the unit (306). In particular, the unit

(306) may be a dual-mode device that operates in wide area network (WAN) cells (102) of a WAN wireless system and wireless local area network (WLAN) cells (104) of a WLAN system (see FIG. 3 and page 9, lines 8-11). For example, the unit (306) may include two sets of transceivers (404, 410), one for the WAN system and one for the WLAN system, for transmitting, receiving, encoding and decoding wireless signals for the frequencies and characteristics of its corresponding system (see FIG. 4 and page 9, lines 20-24). In addition, the mobile subscriber unit (306) may include a means for detecting movement of the unit (306), such as an accelerometer (314) or hardware for use with a global positioning system (GPS) (see FIGs. 3 and 4 and page 9, lines 12-14).

Based on a triggering event while the mobile subscriber unit (306) is operating in a first communication system, the unit (306) can initiate a registration sequence with a second communication system (see FIGs. 7-11 and page 4, line 18 to page 5, line 2). The triggering event may be the detection of a WLAN border cell 210 (see page 4, lines 22-23). As an example, the first communication system can be a WLAN, and the second communication system may be a WAN, which makes them different and separate communications networks (see page 5, lines 13-18). Moreover, the unit (306) may conduct a current call or a subsequent call via the second communication system in response to determining that the speed or displacement of the unit (306) exceeds a first threshold (see FIGs. 7-11 and page

5, lines 2-5). In response to determining that the speed or displacement of the unit (306) does not exceed a second threshold, the unit (306) may abort the registration sequence (see FIGs. 8, 9 and 11 and page 5, lines 7-9). Aborting the registration sequence may include deregistering the unit (306) from the second communication system (see page 17, lines 16-20).

## VI. ISSUES ON APPEAL

Whether claims 1, 9-11, 14, 16, 17, 22 and 28 are patentable under 35 U.S.C. 102(e) over U.S. Patent No. 6,714,785 to Han (Han).

Whether claims 2-8, 12, 15, 21, 23, 25-27 and 29 are patentable under 35 U.S.C. 103(a) over Han in view of U.S. Patent Application Publication No. 2004/0203789 to Hammond, et al. (Hammond).

Whether claims 18-20 are patentable under 35 U.S.C. 103(a) over Han in view of Hammond and further in view of Applicant's admission of prior art.

Whether claim 13 is patentable under 35 U.S.C. 103(a) over Han in view Hammond and further in view of U.S. Patent Application Publication No. 2003/0109258 to Mantyjarvi, et al. (Mantyjarvi).

Whether claim 30 is patent patentable under 35 U.S.C. 103(a) over Han in view Hammond and further in view of U.S. Patent No. 6,771,963 to Cheng, et al. (Cheng).

## VII. GROUPING OF CLAIMS

For purposes of this Appeal, the Applicants present the following grouping of claims:

1. Claims 1-13 are a group, with the appeal as to the ground of rejection being based on claim 1.

2. Claims 14-17 are part of another group, with the appeal as to the ground of rejection being based on claim 14.

3. Claims 18-20 are part of another group, with the appeal as to the ground of rejection being based on claim 18.

4. Claim 21 is part of another group, with the appeal as to the ground of rejection being based on claim 21.

5. Claims 22-23 and 25-27 are part of another group, with the appeal as to the ground of rejection being based on claim 22.

6. Claims 28-30 are part of another group, with the appeal as to the ground of rejection being based on claim 28.

## VIII. ARGUMENT

*The recitations of Han, Hammond and Cheng do not render the invention of claims 1-23 and 25-30 unpatentable.*

A brief summary of the Han reference may be helpful here. Han describes a device for performing a handoff between the cells of a mobile communication

system (see Abstract, FIG. 1 and col. 1, lines 35-36). In particular, a mobile station that is in a call (111) transmits a handoff request message including a measured signal power value and information about a traveling direction thereof, when signal power from an adjacent base station (BS2) is higher than a predetermined threshold (see col. 3, lines 13-19). Upon detection of the handoff request, a service base station (BS1) examines traffic resources of the adjacent base station (BS2) through a base station controller (131) to determine whether there are sufficient spare channels (see col. 8, line 66 to col. 9, line 2). When it is determined that there are sufficient spare channels, the service base station (BS2) performs a handoff (see col. 9, lines 2-5). The handover is between the serving base station (BS1) and the adjacent base station (BS2) (see col. 4, lines 27-39) As taught by Han, these base stations belong to the same mobile communication system (see col. 1, lines 35-36). That is, Han does not describe a procedure for transferring a wireless device between a first communication system and a different second communication system.

It is well settled that in order for a claim to be anticipated under 35 U.S.C. § 102, each and every element of the claimed invention must be disclosed in a single prior art reference. Orthokinetics, Inc. v. Safety Travel Chairs, Inc., 806 F.2d 1565, 1574 (Fed. Cir. 1986). Whether the reference discloses every element of the invention, and also whether the reference and the claimed invention are the same,

is to be determined by considering how persons of ordinary skill in the art interpret the reference. Scripps Clink & Research Fdm. v. Genentech. Inc., 927 F.2d 1565, 1576 (Fed. Cir. 1991).

Additionally, the best defense against hind-sight based obviousness analysis is the rigorous application of the requirement for a showing of a teaching, or motivation to combine the prior art references. Ecolochem v. Southern California Edison Co., 227 F.3d 1361, 1371 (Fed. Cir. 2000). "Combining prior art references without evidence of such a suggestion, teaching or motivation simply takes the inventor's disclosure as a blueprint for piecing together the prior art to defeat patentability--the essence of hindsight." Id. at 1371-1372.

Independent claims 1, 14, 22 and 28 include the feature that a registration sequence is initiated with a second wireless communication system in response to determining that the wireless device is detecting a triggering event. Also, claims 1 and 22 and dependent claim 16 include the feature that the registration sequence is aborted in response to determining that a speed or displacement of the wireless device does not exceed a second predetermined threshold.

It is well known that a handoff from one cell of a system to another cell of the same system is done without initiating a registration sequence with that system. As such, because Han is merely concerned with handover between cells of the same communications system, Han clearly does not disclose the concept of initiating a

registration sequence and more specifically, initiating a registration sequence with a second wireless system or aborting the registration with the second wireless system, particularly based on speed or displacement measurements of the wireless device.

The Examiner has attempted to equate the intra-system handover process described in Han with switching between different network systems, as recited in the claims of the present invention. There are several reasons why this contention is inaccurate. In particular, as noted above, interpretation of the prior art reference must be done through the eyes of one of ordinary skill in the art. Han expressly notes that the communication system being described is a CDMA system (see col. 4, lines 48-50). Under the Third Generation Partnership Project 2 (3GPP2), an organization comprised of North American and Asian interests that sets global specifications for third generation telecommunications systems, descriptions of the registration of a handset and the handoff of a handset are provided.

For example, under Section 2.6.5.1 of the Upper Layer (Layer 3) Signaling Standard for CDMA2000 Spread Spectrum Systems, Release D, Version 2.0 ("Standard"), a copy of which is attached, the term registration is explained as a "process by which the mobile station notifies the base station of its location, status, identification, slot cycle and other characteristics. The mobile station informs the base station of its location and status so that the base station can efficiently page

the mobile station when establishing a mobile station terminated call." (see page 2-487, lines 3-6). The registration procedures themselves are outlined in Section 2.6.5.5 of the Standard (see pages 2-498 – 2-510), a copy of which is attached.

In Section 2.6.6 of that same Standard, a copy of which is attached, it is noted that "[t]his section presents an overview and mobile station requirements for handoffs occurring while the mobile station is in the *Mobile Station Control on the Traffic Channel State* . . ." (see page 2-510, lines 8-10). Under Section 2.6.4, a copy of which is attached, in the Mobile Station Control on the Traffic Channel State, "the mobile station communicates with the base station using the Forward and Reverse Traffic Channels." (see page 2-340, lines 33-34). In Section 2.6.6.1.1, a copy of which is attached, several examples of handoff procedures are described, including hard and soft handoffs (see page 2-510, lines 13-31).

Clearly, individuals skilled in the area of mobile telecommunications have recognized a difference between registration and handoff procedures in view of promulgating standards for both of them. This is true for CDMA, as well as for other cellular standards, like GSM. Further, the handoff procedures of the Standard are described in terms of the mobile station already having established a session via the base station, which will not occur unless the mobile station has previously *registered* with the base station. As such, there is ample evidence that one of skill in the art would interpret the phrase "initiating a registration sequence

with a second wireless communication system" as a process where a mobile unit first communicates with a second communication system that is different from the one with which it is currently communicating to begin operation in the second communication system. Moreover, in view of the above, one of skill in the art would also interpret the phrase "aborting the registration sequence" as a process of terminating the attempt to establish operations via the different network.

A careful review of Han shows that it is directed to and only concerns handoff procedures within a single CDMA communication system, as no reference is made to different communication networks anywhere within Han (see, e.g., FIG. 1; the Abstract; col. 3, lines 13-14; col. 3, lines 30-31; and col. 8, line 40 to col. 9, line 5). In fact, Han expressly describes both soft and hard handoffs, further solidifying its link with the above Standard (see col. 1, lines 19-33). As further evidence that Han is limited to handoff procedures within the same network, the mobile device (111) of Han is never described as a dual-mode device that contains different transceivers for different networks, as is done with the current invention. In view of the above, Applicants submit that one of skill in the art would not believe that Han reads on the invention as claimed.

Independent claim 18 recites the features that the mobile communication device includes at least two transceivers and the handover manager determines when to handover from the first wireless communication system to the second

wireless communication system. Claim 18 also recites that the handover manager aborts a registration sequence with the second wireless communication system. As previously explained, Han does not show, describe or suggest such concepts, as Han is merely concerned with handoffs within a single CDMA wireless system. Thus, Applicants submit that Han does not show a handover manager that determines when to switch communications from a first wireless network to a different second wireless network and selectively aborts the process.

Applicants also submit that there is no suggestion or motivation to combine the GPRS and WLAN transceivers of Hammond with Han. Notably, Han only describes a handoff procedure within a single wireless CDMA system, and as such, one of skill in the art would find no reason to implement the two transceivers of Hammond with Han. In fact, Applicants contend that Han teaches away from such a combination. Specifically, Han explains that "an important role of a searcher is to acquire PN codes generated from the base stations in a cell where the mobile stations are located, and search a PN code generated from an adjacent base station to perform a handoff. In the present embodiment, estimation of the location and traveling direction of the mobile station is obtained as a by-product of searching PN codes of adjacent base stations when performing a handoff." (see col. 4, lines 40-47). As a result, for the invention of Han to work, the base stations must be within the same network, as the differences between base stations of separate

networks would interfere with the estimation of the location and traveling direction of the mobile station. Indeed, synchronization is paramount in Han, as Han specifies that the PN generator is for distinguishing between base stations in a *synchronous* CDMA system (see col. 4, lines 48-50), something not present between different networks.

Independent claim 21 recites the feature that the mobile subscriber device determines when to handover from one wireless communication system to a second wireless communication system and that the handover manager aborts a registration sequence with the second wireless communication system. For reasons previously explained, Applicants submit that Han does not describe handover between first and second communication networks or the selective termination of a registration sequence with the second system.

Independent claim 21 also recites the feature that the mobile communication system includes at least one border cell of a WLAN communications system located at an egress point of a structure. As described in the specification of the current application, a border cell is a WLAN cell that includes an access point that transmits information to a mobile unit that identifies the WLAN cell as a border cell (see page 3, lines 18-22). That is, a mobile unit may rely on the actual identification of a border cell to determine that it is near an entry/exit point, as opposed to constantly monitoring the signal strength of a WLAN cell. Hammond simply does

not show, describe or even suggest the concept of border cells, as understood by one of skill in the art.

Dependent claim 30 recites the feature that the triggering event is a detection of a wireless local area network border cell, and the border cell provides information to the wireless device that identifies the cell as a border cell. In view of the above, Applicants do not believe that Cheng describes such an element. In particular, the handoff trigger in Cheng is based on a signal level, not the identification of a border cell (see col. 3, lines 23-27 – "A handdown or a handoff of the mobile station is triggered after deriving the received power level of the control signal at the mobile station, and determining that the received power level is less than the receive power level.")

Based on the discussion above, Applicants submit that the Han, Hammond and Cheng references simply do not show, describe or suggest, either individually or in combination with one another, the claimed invention. As such, Applicants believe that the rejections of independent claims 1, 14, 18, 21, 22 and 28 are improper and that these claims are patentable over the prior art. In addition, Applicants submit that the claims that depend from these independent claims are patentable over the prior art, both in view of their dependencies on the independent claims and their own independent patentability.

**Conclusion**

For the claims to be unpatentable under § 102, each and every element of the claimed invention must be disclosed in a single prior art reference. Moreover, for claims to be unpatentable under § 103, there must be some suggestion or motivation to combine the prior art references, and the combination of references must show each and every element. Because every element of the claimed invention is not disclosed by the prior art and because there is no suggestion to combine the Han and Hammond references, Applicants contend that the claims on appeal are patentable.

For the reasons set forth above, and as is apparent from a review of the above-cited references, the claims on appeal present patentable subject matter such that reversal of the rejection is appropriate.

Respectfully submitted,

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## IX. CLAIMS APPENDIX

1. (previously presented) A method comprising:

determining that a wireless device operating in a first wireless communication system is detecting a triggering event;

initiating a registration sequence with a second wireless communication system in response to determining that the wireless device is detecting the triggering event;

conducting a current call or a subsequent call via the second wireless communication system in response to determining that a speed or displacement of the wireless device exceeds a first predetermined threshold; and

aborting the registration sequence in response to determining that a speed or displacement of the wireless device does not exceed a second predetermined threshold.

2. (previously presented) The method of claim 1, wherein the triggering event is a detection of a wireless local area network border cell or a detection of a degradation of signal quality.

3. (previously presented) The method of claim 1, wherein the first wireless communication system is a wireless local area network (WLAN) and the second

wireless communication system is a wide area network (WAN).

4. (previously presented) The method of claim 3, wherein the wireless local area network (WLAN) uses a protocol of IEEE Standard 802.11 or Bluetooth.

5. (previously presented) The method of claim 3, wherein the wide area network (WAN) uses a protocol of code division multiple access (CDMA), time division multiple access (TDMA), global system for mobile communications (GSM) or integrated digital enhanced network (iDEN).

6. (previously presented) The method of claim 1, wherein the first wireless communication system is a wide area network (WAN) and the second wireless communication system is a wireless local area network (WLAN).

7. (previously presented) The method of claim 6, wherein the wireless local area network (WLAN) uses a protocol of IEEE Standard 802.11 or Bluetooth.

8. (previously presented) The method of claim 6, wherein the wide area network (WAN) uses a protocol of code division multiple access (CDMA), time division multiple access (TDMA), global system for mobile communications (GSM) or integrated digital enhanced network (iDEN).

9. (previously presented) The method of claim 1, wherein the determining, initiating, conducting and aborting steps are performed in the wireless device, wherein the wireless device is a mobile subscriber unit.

10. (previously presented) The method of claim 1, wherein aborting the registration sequence comprises, if the registration sequence is complete, deregistering from the second wireless communication system in response to determining that a speed or displacement of the wireless device does not exceed the second predetermined threshold.

11. (previously presented) The method of claim 1, wherein the speed or displacement of the wireless device step is determined by movement detecting means of the wireless device.

12. (previously presented) The method of claim 11, wherein the movement

detecting means comprises an accelerometer detecting means or a global positioning system means.

13. (original) The method of claim 12, wherein the accelerometer detecting means comprises at least three independent axes.

14. (previously presented) A method comprising:

determining that a wireless device operating in a first wireless communication system is detecting a triggering event;

initiating a registration sequence with a second wireless communication system in response to determining that the wireless device is detecting a triggering event and measuring a speed or displacement of the wireless device exceeding a first predetermined threshold; and

conducting current and subsequent calls via the second wireless communication system.

15. (previously presented) The method of claim 14, wherein the triggering event is a detection of a wireless local area network border cell or a detection of a degradation of signal quality.

16. (previously presented) The method of claim 14, further comprising:

aborting the registration sequence in response to determining that a speed or displacement of the wireless device does not exceed a second predetermined threshold, wherein the determining, initiating, conducting and aborting steps are performed in the wireless device, wherein the wireless device is a mobile subscriber unit.

17. (previously presented) The method of claim 14, further comprising:

if the registration sequence is completed, deregistering from the second wireless communication system in response to determining that a speed or displacement of the wireless device does not exceed a second predetermined threshold.

18. (previously presented) A mobile communication device comprising:

at least two transceivers, each transceiver designed to operate on a separate wireless communications system, for transmitting and receiving wireless information;

a controller, communicatively coupled to each transceiver, for managing the operation of the mobile communication device;

a first wireless communications system stack, communicatively coupled to the controller, having instructions for communicating according to its respective protocol;

a second wireless communications system stack, communicatively coupled to the controller, having instructions for communicating according to its respective protocol;

a means for measuring speed or displacement of the wireless device, communicatively coupled to the controller; and

a handover manager, communicatively coupled to the controller, the first wireless communications system stack, the second wireless communications system stack, and the means for measuring speed or displacement of the wireless device, the handover manager for determining when to handover from the first wireless communication system to the second wireless communication system in response to determining that a speed or displacement of the device exceeds a first

predetermined threshold, wherein the handover manager aborts a registration sequence with the second wireless communication system in response to determining that a speed or displacement of the wireless device does not exceed a second predetermined threshold.

19. (previously presented) The device of claim 18, wherein the means for measuring speed or displacement of the device comprises an accelerometer detecting means or a global positioning system detecting means.

20. (previously presented) The device of claim 18, wherein the handover manager, if a registration sequence with the second wireless communication system is completed, deregisters the wireless device from the second wireless communication system in response to determining that a speed or displacement of the wireless device does not exceed the second predetermined threshold.

21. (previously presented) A mobile communication system comprising:

at least one cell of a wireless local area network communications system, the at least one cell providing communication coverage within a structure having at least one egress point;

at least one coverage cell of a second communications system, overlapping the at least one cell of a wireless local area network, for providing communication coverage outside the structure;

at least one border cell of a wireless local area network communications system, the border cell located at the egress point of the structure, providing a transition area from the wireless local area network communications system and the second communications system; and

at least one mobile subscriber device, communicatively coupled with the at least one cell of the wireless local area network communications system, the at least one coverage cell of the second communications system, and the at least one border cell of a wireless local area network communications system, the at least one mobile subscriber device determining when to handover from one wireless communication system to the second wireless communication system in response to determining that a speed or displacement of the device exceeds a predetermined threshold, wherein the handover manager aborts a registration sequence with the second wireless communication system in response to determining that a speed or

displacement of the wireless device does not exceed a second predetermined threshold.

22. (previously presented) A computer readable medium comprising computer instructions for performing the steps of:

determining that a wireless device operating in a first wireless communication system is detecting a triggering event;

initiating a registration sequence with a second wireless communication system in response to determining that the wireless device is detecting the triggering event;

conducting current and subsequent calls via the second wireless communication system in response to determining that a speed or displacement of the wireless device exceeds a first predetermined threshold; and

aborting the registration sequence in response to determining that a speed or displacement of the wireless device does not exceed a second predetermined threshold.

23. (previously presented) The computer readable medium of claim 22, wherein the triggering event is a detection of a wireless local area network border cell or a detection of a degradation of signal quality.

24. (canceled)

25. (previously presented) The computer readable medium of claim 22, wherein aborting the registration sequence comprises, if the registration sequence is complete, deregistering from the second wireless communication system in response to determining that a speed or displacement of the wireless device does not exceed the second predetermined threshold.

26. (previously presented) The computer readable medium of claim 22, wherein the speed or displacement of the wireless device is determined by movement detecting means of the wireless device.

27. (previously presented) The computer readable medium of claim 26, wherein the movement detecting means comprises an accelerometer detecting means or a global positioning system means.

28. (previously presented) A method to improve battery life of a wireless device, comprising:

conducting a current call via a first wireless communication system;

detecting a triggering event at the wireless device;

measuring a speed or a displacement of the wireless device;

initiating, while conducting the current call via the first wireless communication system, a registration sequence with a second wireless communication system in response to detecting a triggering event at the wireless device;

conducting the current call or a subsequent calls via the second wireless communication system in response to determining that the speed or the displacement of the wireless device exceeds a first predetermined threshold; and

conducting the current call or a subsequent call via the first wireless communication system in response to determining that the speed or the displacement of the wireless device does not exceed the first predetermined threshold.

29. (previously presented) The method of claim 28, further comprising:

determining again a speed or a displacement of the wireless device; and

deregistering from the second wireless communication system in response to determining that the again determined speed or displacement of the wireless device does not exceed a second predetermined threshold.

30. (previously presented) The method of claim 28, wherein the triggering event is a detection of a wireless local area network border cell, the border cell providing information to the wireless device that identifies the cell as a border cell.

*3GPP2 C.S0005-D*

*Version 2.0*

*Date: September, 2005*

3RD GENERATION PARTNERSHIP PROJECT 2 "3GPP2"

# *Upper Layer (Layer 3) Signaling Standard for cdma2000 Spread Spectrum Systems*

## *Release D*

### 2.6.5 Registration

#### 2.6.5.1 Forms of Registration

Registration is the process by which the mobile station notifies the base station of its location, status, identification, slot cycle, and other characteristics. The mobile station informs the base station of its location and status so that the base station can efficiently page the mobile station when establishing a mobile station terminated call. For operation in the slotted mode, the mobile station supplies the SLOT_CYCLE_INDEX parameter so that the base station can determine which slots the mobile station is monitoring. The mobile station supplies the station class mark and the protocol revision number so that the base station knows the capabilities of the mobile station.

The CDMA system supports 12 different forms of registration:

1. Power-up registration. The mobile station registers when it powers on, switches from using a different frequency block designator, switches from using a different band class, switches from using an alternative operating mode, upon the insertion of an R-UIM into a powered-on ME, or switches from using the analog system.
2. Power-down registration. The mobile station registers when it powers off if previously registered in the current serving system.
3. Timer-based registration. The mobile station registers when a timer expires.
4. Distance-based registration. The mobile station registers when the distance between the current base station and the base station in which it last registered exceeds a threshold.
5. Zone-based registration. The mobile station registers when it enters a new zone.
6. Parameter-change registration. The mobile station registers when certain of its stored parameters change or when it enters a new system.
7. Ordered registration. The mobile station registers when the base station requests it.
8. Implicit registration. When a mobile station successfully sends an *Origination Message*, *Reconnect Message*, or *Page Response Message*, the base station can infer the mobile station's location. This is considered an implicit registration.
9. Traffic Channel registration. Whenever the base station has registration information for a mobile station that has been assigned to a Traffic Channel, the base station can notify the mobile station that it is registered.
10. User Zone Registration. The mobile station registers when it selects an active User Zone (see 2.6.9.1.2).
11. Encryption/Message Integrity re-sync required registration. The mobile station registers when extended encryption is turned on and the mobile station determines that it can not decrypt any messages from the base station (see 2.3.12.4.1.3) or the mobile station registers when message integrity is supported and the mobile station determines that it can not validate the MACI of any messages from the base station.

- The mobile station is a foreign SID roamer and both $FOR\_SID\_REG_S$ and $MOB\_TERM\_FOR\_SID_p$ are equal to '1'; otherwise the mobile station shall set $REG\_ENABLED_S$ to NO.

The mobile station performs autonomous registrations if $REG\_ENABLED_S$ is YES.

2.6.5.4 Registration Timers and Indicators

The mobile station shall provide the following registration timers:

- Power-up/initialization timer (see 2.6.5.1.1).
- Timer-based registration timer (see 2.6.5.1.3).
- Zone list entry timers (see 2.6.5.1.5).
- SID/NID list entry timers (see 2.6.5.1.5).
- BCMC frequency registration timer (see 2.6.13).
- BCMC registration required timer (see 2.6.13).

The mobile station shall provide a means of enabling and disabling each timer. When a timer is disabled, it shall not be considered expired. A timer that has been enabled is referred to as active.

2.6.5.5 Registration Procedures

2.6.5.5.1 Actions in the Mobile Station Initialization State

2.6.5.5.1.1 Power-Up or Change to a Different Operating Mode, Band Class, Serving System, Frequency Block Designator, or R-UIM Insertion.

Upon power-up, the mobile station shall perform the following actions:

- Delete all entries of $ZONE\_LIST_S$.
- If $ZONE\_LIST_{S\text{-}p}$ contains an entry, copy the entry to $ZONE\_LIST_S$ and disable the corresponding entry timer.
- Delete all entries of $SID\_NID\_LIST_S$.
- If $SID\_NID\_LIST_{S\text{-}p}$ contains an entry, copy the entry to $SID\_NID\_LIST_S$ and disable the corresponding entry timer.
- Set the registered flag ($REGISTERED_S$) to NO.
- Set timer-based registration enable status ($COUNTER\_ENABLED_S$) to NO.
- Set autonomous registration enable status ($REG\_ENABLED_S$) to NO.
- Set $RETURN\_CAUSE_S$ to '0000'.
- Set KEY_ID, $LAST\_2G\_KEY\_ID_S$, and $LAST\_3G\_KEY\_ID_S$ to '00'.
- Set ENC_KEY[i] and INT_KEY[i] to NULL, where i ranges from '00' to '11'.
- Set $D\_SIG\_ENCRYPT\_MODE_S$ and $C\_SIG\_ENCRYPT\_MODE_S$ to '000'.

- Set RESTORE_KEYS to '0'.
- If the UIM contains IK and CK, the mobile station shall set KEY_ID to '10', RESTORE_KEYS to '1', INT_KEY[KEY_ID] to IK, ENC_KEY[KEY_ID] to CK, TX_EXT_SSEQ[.][KEY_ID] and TX_EXT_SSEQ[.][KEY_ID] to any 24-bit value multiplied by 256.

If any of the following conditions is true: ~~Upon switching~~

- BYPASS_REG_IND$_S$ is equal to '00' and the mobile station has switched from using CDMA ~~from using CDMA in a different band class,~~
  - in a different band class, or
  - in a different serving system in a band class that supports multiple serving systems (e.g., Band Class 0), or
  - in a different frequency block designator in a band class that supports frequency block designator allocations (e.g. Band Class 1)
- BYPASS_REG_IND$_S$ is equal to '01' and, for a reason other than processing the *Extended CDMA Channel List Message*, the mobile station has switched from using CDMA ~~from using CDMA in a different serving system in a band class that supports multiple serving systems (e.g., Band Class 0),~~
  - in a different band class, or
  - in a different serving system in a band class that supports multiple serving systems (e.g., Band Class 0), or
  - in a different frequency block designator in a band class that supports frequency block designator allocations (e.g. Band Class 1)
- BYPASS_REG_IND$_S$ is equal to '10', SID$_S$ is different than REG_SID$_S$ and the mobile station has switched from using CDMA ~~from using CDMA in a different frequency block in a band class that supports frequency block allocations (e.g. Band Class 1), or~~
  - in a different band class, or
  - In a different serving system in a band class that supports multiple serving systems (e.g., Band Class 0), or
  - In a different frequency block designator in a band class that supports frequency block designator allocations (e.g. Band Class 1)
- the mobile station has switched from using the 800 MHz analog system,

the mobile station shall perform the following actions:

- Set timer-based registration enable status (COUNTER_ENABLED$_S$) to NO.
- Set autonomous registration enable status (REG_ENABLED$_S$) to NO.
- Set RETURN_CAUSE$_S$ to '0000'.
- Set the registered flag (REGISTERED$_S$) to NO.

- Set KEY_ID, LAST_2G_KEY_ID$_S$, and LAST_3G_KEY_ID$_S$ to '00'.
- Set ENC_KEY[i] and INT_KEY[i] to NULL, where i ranges from '00' to '11'.
- Set RESTORE_KEYS to '0'.
- If the UIM contains IK and CK, the mobile station shall set KEY_ID to '10', RESTORE_KEYS to '1', INT_KEY[KEY_ID] to IK, ENC_KEY[KEY_ID] to CK, TX_EXT_SSEQ[.][KEY_ID] and TX_EXT_SSEQ[.][KEY_ID] to any 24-bit value multiplied by 256.

2.6.5.5.1.2 Timer Maintenance

While in the *Mobile Station Initialization State*, the mobile station shall update all active registration timers (see 2.6.5.4). If any timer expires while in this state, the mobile station shall preserve the expiration status so that further action can be taken in the *Mobile Station Idle State*.

2.6.5.5.1.3 Entering the Mobile Station Idle State

Before entering the *Mobile Station Idle State* from the *Mobile Station Initialization State*, the mobile station shall perform the following action:

- If REGISTERED$_S$ is equal to NO, enable the power-up/initialization timer with an expiration time of $T_{57m}$ seconds (see 2.6.5.1.1) only when the mobile station is entering this state with a power-up indication.

2.6.5.5.2 Actions in the Mobile Station Idle State

Requirements in this section and its subsections apply only when the mobile station is in the *Mobile Station Idle State*.

2.6.5.5.2.1 Idle Registration Procedures

These procedures are performed whenever the mobile station is in the *Mobile Station Idle State* (sec 2.6.2.1.3).

While in the *Mobile Station Idle State*, the mobile station shall update all active registration timers (see 2.6.5.4).

If the power-up/initialization timer has expired or is disabled, the mobile station shall perform the following actions in the order given. If any action necessitates a registration, the mobile station shall enter the *Update Overhead Information Substate* of the *System Access State* (see 2.6.3) with a registration indication.

1. The timer-based registration timer shall be enabled (COUNTER_ENABLED$_S$ = YES) and the timer count (REG_COUNT$_S$) shall be set to a pseudorandom number as specified in 2.6.5.1.3, if the following conditions are met:
   a. COUNTER_ENABLED$_S$ is equal to NO; and
   b. The stored configuration parameters are current (see 2.6.2.2); and
   c. REG_ENABLED$_S$ is equal to YES; and

d. $REG\_PRD_S$ is not equal to zero.

2. If any zone list entry timer (see 2.6.5.1.5) has expired, the mobile station shall delete the corresponding entry from $ZONE\_LIST_S$.

3. If any SID/NID list entry timer (see 2.6.5.1.5) has expired, the mobile station shall delete the corresponding entry from $SID\_NID\_LIST_S$.

4. The mobile station shall perform power-up registration, as specified in 2.6.5.1.1, if all the following conditions are met:

   a. $POWER\_UP\_REG_S$ is equal to '1'; and

   b. The stored configuration parameters are current (see 2.6.2.2); and

   c. $REGISTERED_S$ is equal to NO, and

   d. $REG\_ENABLED_S$ is equal to YES.

5. The mobile station shall perform parameter-change registration (see 2.6.5.1.6) if all the following conditions are met:

   a. $PARAMETER\_REG_S$ is equal to '1'; and

   b. The stored configuration parameters are current (see 2.6.2.2); and

   c. There is no entry of $SID\_NID\_LIST_S$ whose SID and NID fields match the stored $SID_S$ and $NID_S$.

6. The mobile station shall perform timer-based registration (see 2.6.5.1.3) if all the following conditions are met:

   a. $COUNTER\_ENABLED_S$ is equal to YES; and

   b. The stored configuration parameters are current (see 2.6.2.2); and

   c. $REG\_ENABLED_S$ is equal to YES; and

   d. $REG\_COUNT_S$ is greater than or equal to $REG\_COUNT\_MAX_S$.

7. The mobile station shall perform distance-based registration (see 2.6.5.1.4) if all the following conditions are met:

   a. $REG\_DIST_S$ is not equal to zero; and

   b. The stored configuration parameters are current (see 2.6.2.2); and

   c. $REG\_ENABLED_S$ is equal to YES; and

   d. The current base station's distance from the base station in which the mobile station last registered (see 2.6.5.1.4) is greater than or equal to $REG\_DIST\_REG_{S\text{-}P}$.

8. The mobile station shall perform zone-based registration (see 2.6.5.1.5) if all the following conditions are met:

   a. $TOTAL\_ZONES_S$ is not equal to zero; and

   b. The stored configuration parameters are current (see 2.6.2.2); and

c. REG_ENABLED$_S$ is equal to YES; and

d. There is no entry of ZONE_LIST$_S$ whose SID, NID and REG_ZONE fields match the stored SID$_S$, NID$_S$ and REG_ZONE$_S$.

9. The mobile station shall perform User Zone registration (see 2.6.2.5.1.10) if it selects an active User Zone (see 2.6.9.1.2).

10. The mobile station shall perform encryption/message integrity re-sync required registration (see 2.6.5.1.11) if all the following conditions are met:

a. REG_SECURITY_RESYNC is equal to YES or REGISTER_IN_IDLE$_S$ is equal to '1'; and

b. None of the above registrations have been performed since the last entering of the *Mobile Station Idle State*.

2.6.5.5.2.2 Processing the Registration Fields of the System Parameters Message and ANSI-41 System Parameters Message

When the mobile station processes the *System Parameters Message* or *ANSI-41 System Parameters Message*, it shall perform the following actions:

1. If REG_PRD$_S$ is equal to zero, the mobile station shall set COUNTER_ENABLED$_S$ to NO.

2. If REG_PRD$_S$ is not equal to zero, the mobile station shall set REG_COUNT_MAX$_S$ as specified in 2.6.5.1.3.

3. The mobile station shall update its roaming status and set REG_ENABLED$_S$ as specified in 2.6.5.3.

4. If ZONE_LIST$_S$ contains more than TOTAL_ZONES$_S$ entries, the mobile station shall delete the excess entries according to the rules specified in 2.6.5.1.5.

5. If MULT_SIDS$_S$ is equal to '0' and SID_NID_LIST contains entries with different SIDs, delete the excess entries according to the rules specified in 2.6.5.1.5.

6. If MULT_NIDS$_S$ is equal to '0' and SID_NID_LIST contains more than one entry for any SID, delete the excess entries according to the rules specified in 2.6.5.1.5.

2.6.5.5.2.3 Ordered Registration

Ordered registration is performed after receiving a *Registration Request Order* while in the *Mobile Station Order and Message Processing Operation* (see 2.6.2.4).

The mobile station shall enter the *Update Overhead Information Substate* of the *System Access State* with a registration indication within $T_{33m}$ seconds after the *Registration Request Order* is received.

2.6.5.5.2.4 Power Off

These procedures are performed when the mobile station is directed by the user to power off.

The mobile station shall perform the following actions:

- If an entry of $ZONE\_LIST_S$ does not have an active timer, copy that entry to $ZONE\_LIST_{S-P}$; otherwise, delete any entry in $ZONE\_LIST_{S-P}$.
- If an entry of $SID\_NID\_LIST_S$ does not have an active timer, copy that entry to $SID\_NID\_LIST_{S-P}$; otherwise, delete any entry in $SID\_NID\_LIST_{S-P}$.

The mobile station shall perform power-down registration (see 2.6.5.1.2) by entering the *System Access State* with a registration indication within $T_{33m}$ seconds after the user directs the mobile station to power off, if all the following conditions are true:

- $REG\_ENABLED_S$ equals YES; and
- $POWER\_DOWN\_REG_S$ equals '1'; and
- There is an entry of $SID\_NID\_LIST_S$ for which the SID and NID fields are equal to $SID_S$ and $NID_S$; and
- The power-up/initialization timer (see 2.6.5.1.1) is disabled or has expired.

2.6.5.5.2.5 Full-TMSI Timer Expiration

When the mobile station sets all the bits of $TMSI\_CODE_{S-P}$ to '1' upon expiration of the full-TMSI timer (see 2.6.2), the mobile station shall delete all entries from $SID\_NID\_LIST_S$ and $ZONE\_LIST_S$.

2.6.5.5.3 Actions in the System Access State

Requirements in this section and its subsections apply only when the mobile station is in the *System Access State*.

2.6.5.5.3.1 Successful Access, Registration, or Implicit Registration

These procedures shall be performed after the mobile station receives confirmation of delivery of a *Registration Message*, *Origination Message*, *Reconnect Message*, or *Page Response Message* sent on the r-csch (see 2.6.3.1.2).

- Disable the power-up/initialization timer (see 2.6.5.1.1).
- If the mobile station supports the 800 MHz analog mode, set the First-Idle ID status to enabled (see[6]).
- Set $DIGITAL\_REG_{S-P}$ to '00000001'.
- Set $REG\_COUNT_S$ to zero.
- Set $REGISTERED_S$ to YES.
- If an explicit or implicit registration was sent, set SLOT_CYCLE_INDEX_REG to the slot cycle index the mobile station included in the message.
- If $BYPASS\_REG\_IND_S$ is equal to '00', the mobile station shall perform the following:
  - Delete all entries from $ZONE\_LIST_S$ belonging to a different band class (see [245]) than $CDMABAND_S$.

- If $CDMABAND_S$ contains multiple serving systems, delete all entries from $ZONE\_LIST_S$ that have a SID from a different serving system than $SERVSYS_S$.
- If $CDMABAND_S$ contains multiple frequency block designators, delete all entries from $ZONE\_LIST_S$ belonging to a different frequency block designator (see [45]) than the frequency block designator associated with $REG\_SID_S$.

~~- If $CDMABAND_S$ = '00000' or $CDMABAND_S$ = '00011', delete all entries from $ZONE\_LIST_S$ that have a SID from a different serving system than $SERVSYS_S$.~~

~~- If $CDMABAND_S$ = '00001', $CDMABAND_S$ = '00010', $CDMABAND_S$ = '00100', $CDMABAND_S$ = '00101', $CDMABAND_S$ = '00111', or $CDMABAND_S$ = '01010', delete all entries from $ZONE\_LIST_S$ belonging to a different frequency block (see [2]) than the frequency block associated with $REG\_SID_S$.~~

- Add $REG\_REG\_ZONE_S$, $REG\_SID_S$, and $REG\_NID_S$ to $ZONE\_LIST_S$ if not already in the list. If required, include the band class identifier and block identifier for the current band and frequency block designator as specified in 2.6.5.1.5.
- Disable the zone list entry timer for the entry of $ZONE\_LIST_S$ containing $REG\_REG\_ZONE_S$, $REG\_SID_S$, and $REG\_NID_S$. For any other entry of $ZONE\_LIST_S$ whose entry timer is not active, enable the entry timer with the duration specified by $REG\_ZONE\_TIMER_S$ (see 2.6.5.1.5).
- If $ZONE\_LIST_S$ contains more than $TOTAL\_ZONES_S$ entries, delete the excess entries according to the rules specified in 2.6.5.1.5.
- If $BYPASS\_REG\_IND_S$ is equal to '00', the mobile station shall perform the following:
  - Delete all entries from $SID\_NID\_LIST_S$ belonging to a different band class (see [345]) than $CDMABAND_S$.
  - If $CDMABAND_S$ contains multiple serving systems, delete all entries from $SID\_NID\_LIST_S$ that have a SID from a different serving system than $SERVSYS_S$.
  - If $CDMABAND_S$ contains multiple frequency block designators, delete all entries from $SID\_NID\_LIST_S$ belonging to a different frequency block designator (see [45]) than the frequency block designator associated with $REG\_SID_S$.

~~- If $CDMABAND_S$ = '00000' or $CDMABAND_S$ = '00011', delete all entries from $SID\_NID\_LIST_S$ that have a SID from a different serving system than $SERVSYS_S$.~~

~~- If $CDMABAND_S$ = '00001', $CDMABAND_S$ = '00010', $CDMABAND_S$ = '00100', $CDMABAND_S$ = '00101', $CDMABAND_S$ = '00111', or $CDMABAND_S$ = '01010', delete all entries from $SID\_NID\_LIST_S$ belonging to a different frequency block (see [2]) than the frequency block associated with $REG\_SID_S$.~~

- Add $REG\_SID_S$ and $REG\_NID_S$ to $SID\_NID\_LIST_S$ if not already in the list. If required, include the band class identifier and block identifier for the current band and frequency block designator as specified in 2.6.5.1.5.

- Disable the SID/NID list entry timer for the entry of $SID\_NID\_LIST_S$ containing $REG\_SID_S$, and $REG\_NID_S$. For any other entry of $SID\_NID\_LIST_S$ whose entry timer is not active, enable the entry timer with the duration specified in 2.6.5.1.5.
- If $SID\_NID\_LIST_S$ contains more than $N_{10m}$ entries, delete the excess entries according to the rules specified in 2.6.5.1.5.
- If $MULT\_SIDS_S$ is equal to '0' and SID_NID_LIST contains entries with different $REG_SID_S$s, delete the excess entries according to the rules specified in 2.6.5.1.5.
- If $MULT\_NIDS_S$ is equal to '0' and SID_NID_LIST contains more than one entry for any SID, delete the excess entries according to the rules specified in 2.6.5.1.5.
- Set the stored location of last registration ($BASE\_LAT\_REG_{S\text{-}P}$ and $BASE\_LONG\_REG_{S\text{-}P}$) to the current base station's location ($BASE\_LAT_S$ and $BASE\_LONG_S$). Set the stored registration distance ($REG\_DIST\_REG_{S\text{-}P}$) to the current base station's registration distance ($REG\_DIST_S$).
- Set REG_SECURITY_RESYNC to NO.
- Set $REGISTER\_IN\_IDLE_S$ to '0'.
- ~~If $MSG\_INTEGRITY\_SUP_S$ is equal to '1', the mobile station shall set the key set-up timer for $T_{75m}$.~~

These procedures shall be performed after the mobile station receives confirmation of delivery of any other message:

- If the mobile station supports the 800 MHz analog mode, set the First-Idle ID status to enabled (see [6]).
- Set $DIGITAL\_REG_{S\text{-}P}$ to '00000001'.
- If $BYPASS\_REG\_IND_S$ is equal to '00', the mobile station shall perform the following:
  - Delete all entries from $ZONE\_LIST_S$ belonging to a different band class (see [245]) than $CDMABAND_S$.
  - If $CDMABAND_S$ contains multiple serving systems, delete from $ZONE\_LIST_S$ all entries from $ZONE\_LIST_S$ that have a SID from a different serving system than $SERVSYS_S$.
  - If $CDMABAND_S$ contains multiple frequency block designators, delete all entries from $ZONE\_LIST_S$ belonging to a different frequency block designator (see [45]) than the frequency block designator associated with $SID_S$.
- ~~If $CDMABAND_S$ = '00000' or $CDMABAND_S$ = '00011', delete from $ZONE\_LIST_S$ all entries from $ZONE\_LIST_S$ that have a SID from a different serving system than $SERVSYS_S$.~~
- ~~If $CDMABAND_S$ = '00001', $CDMABAND_S$ = '00010', $CDMABAND_S$ = '00100', $CDMABAND_S$ = '00101', $CDMABAND_S$ = '00111', or $CDMABAND_S$ = '01010', delete all entries from $ZONE\_LIST_S$ belonging to a different frequency block (see [2]) than the frequency block associated with $SID_S$.~~

- For any entry of $ZONE\_LIST_S$ not matching $REG\_ZONE_S$, $SID_S$, and $NID_S$ and not having an active entry timer, enable the entry timer with the duration specified by $ZONE\_TIMER_S$ (see 2.6.5.1.5).
- If $BYPASS\_REG\_IND_S$ is equal to '00', the mobile station shall perform the following:
  - Delete all entries from $SID\_NID\_LIST_S$ belonging to a different band class (see [245]) than $CDMABAND_S$.
  - If $CDMABAND_S$ contains multiple serving systems, delete from $SID\_NID\_LIST_S$ all entries from $SID\_NID\_LIST_S$ that have a SID from a different serving system than $SERVSYS_S$.
  - If $CDMABAND_S$ contains multiple frequency block designators, delete all entries from $SID\_NID\_LIST_S$ belonging to a different frequency block designator (see [45]) than the frequency block designator associated with $SID_S$.
- ~~If $CDMABAND_S$ = '00000' or $CDMABAND_S$ = '00011', delete from $SID\_NID\_LIST_S$ all entries from $SID\_NID\_LIST_S$ that have a SID from a different serving system than $SERVSYS_S$.~~
- ~~If $CDMABAND_S$ = '00001', $CDMABAND_S$ = '00010', $CDMABAND_S$ = '00100', $CDMABAND_S$ = '00101', $CDMABAND_S$ = '00111', or $CDMABAND_S$ = '01010', delete all entries from $SID\_NID\_LIST_S$ belonging to a different frequency block (see [2]) than the frequency block associated with $SID_S$.~~
- For any entry of $SID\_NID\_LIST_S$ not matching $SID_S$ and $NID_S$ and not having an active entry timer, enable the entry timer with the duration specified by $ZONE\_TIMER_S$ (see 2.6.5.1.5).

2.6.5.5.3.2 Unsuccessful Access

These procedures are performed when the mobile station declares an access attempt failure when in the *System Access State* (see 2.6.3).

The mobile station shall perform the following actions:

- If the mobile station supports the 800 MHz analog mode, set the First-Idle ID status to enabled (see [6]).
- Set $DIGITAL\_REG_{S\text{-}P}$ to '00000001'.
- If an explicit or implicit registration was sent, set SLOT_CYCLE_INDEX_REG to min(SLOT_CYCLE_INDEX_REG, slot cycle index the mobile station included in the message).
- If $BYPASS\_REG\_IND_S$ is equal to '00', the mobile station shall perform the following:
  - Delete all entries from $ZONE\_LIST_S$ belonging to a different band class (see [245]) than $CDMABAND_S$.

- If $CDMABAND_S$ contains multiple serving systems, delete from $ZONE\_LIST_S$ all entries from $ZONE\_LIST_S$ that have a SID from a different serving system than $SERVSYS_S$.
- If $CDMABAND_S$ contains multiple frequency block designators, delete all entries from $ZONE\_LIST_S$ belonging to a different frequency block designator (see [45]) than the frequency block designator associated with $SID_S$.

~~• If $CDMABAND_S$ = '00000' or $CDMABAND_S$ = '00011', delete from $ZONE\_LIST_S$ all entries from $ZONE\_LIST_S$ that have a SID from a different serving system than $SERVSYS_S$.~~

~~• If $CDMABAND_S$ = '00001', $CDMABAND_S$ = '00010', $CDMABAND_S$ = '00100', $CDMABAND_S$ = '00101', $CDMABAND_S$ = '00111', or $CDMABAND_S$ = '01010', delete all entries from $ZONE\_LIST_S$ belonging to a different frequency block (see [2]) than the frequency block associated with $SID_S$.~~

- For any entry of $ZONE\_LIST_S$ not matching $REG\_ZONE_S$, $SID_S$, and $NID_S$ and not having an active entry timer, enable the entry timer with the duration specified by $ZONE\_TIMER_S$ (see 2.6.5.1.5).
- If $BYPASS\_REG\_IND_S$ is equal to '00', the mobile station shall perform the following:
  - Delete all entries from $SID\_NID\_LIST_S$ belonging to a different band class (see [245]) than $CDMABAND_S$.
  - If $CDMABAND_S$ contains multiple serving systems, delete from $SID\_NID\_LIST_S$ all entries from $SID\_NID\_LIST_S$ that have a SID from a different serving system than $SERVSYS_S$.
  - If $CDMABAND_S$ contains multiple frequency block designators, delete all entries from $SID\_NID\_LIST_S$ belonging to a different frequency block designator (see [45]) than the frequency block designator associated with $SID_S$.

~~• If $CDMABAND_S$ = '00000' or $CDMABAND_S$ = '00011', delete from $SID\_NID\_LIST_S$ all entries from $SID\_NID\_LIST_S$ that have a SID from a different serving system than $SERVSYS_S$.~~

~~• If $CDMABAND_S$ = '00001', $CDMABAND_S$ = '00010', $CDMABAND_S$ = '00100', $CDMABAND_S$ = '00101', $CDMABAND_S$ = '00111', or $CDMABAND_S$ = '01010', delete all entries from $SID\_NID\_LIST_S$ belonging to a different frequency block (see [2]) than the frequency block associated with $SID_S$.~~

- For any entry of $SID\_NID\_LIST_S$ not matching $SID_S$ and $NID_S$ and not having an active entry timer, enable the entry timer with the duration specified by $ZONE\_TIMER_S$ (see 2.6.5.1.5).

2.6.5.5.3.3 Power Off

These procedures are performed when the mobile station is directed by the user to power off.

The mobile station shall perform the following actions:

- If an entry of $ZONE\_LIST_S$ does not have an active timer, copy that entry to $ZONE\_LIST_{S\text{-}P}$; otherwise, delete any entry in $ZONE\_LIST_{S\text{-}P}$.
- If an entry of $SID\_NID\_LIST_S$ does not have an active timer, copy that entry to $SID\_NID\_LIST_{S\text{-}P}$; otherwise, delete any entry in $SID\_NID\_LIST_{S\text{-}P}$.

2.6.5.5.4 Actions in the Mobile Station Control on the Traffic Channel State

Requirements in this section and its subsections apply only when the mobile station is in the *Mobile Station Control on the Traffic Channel State*.

2.6.5.5.4.1 Traffic Channel Initialization

Upon entering the *Traffic Channel Initialization Substate* of the *Mobile Station Control on the Traffic Channel State*, the mobile station shall set $COUNTER\_ENABLED_S$ to NO, shall set $TBR\_RAND\_SUPPR\_ENABLE_S$ to '0', and shall set $TBR\_RAND\_WINDOW_S$ to '11'.

2.6.5.5.4.2 Timer Maintenance

While in the *Mobile Station Control on the Traffic Channel State*, the mobile station shall update all active registration timers.

If a zone list entry timer expires, the mobile station shall delete the corresponding entry from $ZONE\_LIST_S$. If a SID/NID list entry timer expires, the mobile station shall delete the corresponding entry from $SID\_NID\_LIST_S$.

2.6.5.5.4.3 Processing the Mobile Station Registered Message

The mobile station receives the *Mobile Station Registered Message* on the Forward Traffic Channel when the mobile station is considered registered for the base station whose location and other parameters are included in the message.

The mobile station shall store the following parameters:

- System identification ($SID_S = SID_r$)
- Network identification ($NID_S = NID_r$)
- Registration zone ($REG\_ZONE_S = REG\_ZONE_r$)
- Number of registration zones to be retained ($TOTAL\_ZONES_S = TOTAL\_ZONES_r$)
- Zone timer length ($ZONE\_TIMER_S = ZONE\_TIMER_r$)
- Multiple SID storage indicator ($MULT\_SIDS_S = MULT\_SIDS_r$)
- Multiple NID storage indicator ($MULT\_NIDS_S = MULT\_NIDS_r$)
- Base station latitude ($BASE\_LAT_S = BASE\_LAT_r$)
- Base station longitude ($BASE\_LONG_S = BASE\_LONG_r$)
- Registration distance ($REG\_DIST_S = REG\_DIST_r$)

The mobile station shall perform the following actions:

- If the mobile station supports the 800 MHz analog mode, set the First-Idle ID status to enabled (see [6]).
- Set DIGITAL_REG$_{S\text{-}p}$ to '00000001'.
- Add REG_ZONE$_S$, SID$_S$, and NID$_S$ to ZONE_LIST$_S$ if not already in the list. If required, include the band class identifier and block identifier for the current band and frequency block designator as specified in 2.6.5.1.5.
- If BYPASS_REG_IND$_S$ is equal to '00', dDelete all entries from ZONE_LIST$_S$ belonging to a different band class (see [245]) than CDMABAND$_S$.
- Disable the zone list entry timer for the entry of ZONE_LIST$_S$ containing REG_ZONE$_S$, SID$_S$, and NID$_S$. For any other entry of ZONE_LIST$_S$ whose entry timer is not active, enable the entry timer with the duration specified by ZONE_TIMER$_S$ (see 2.6.5.1.5).
- If ZONE_LIST$_S$ contains more than TOTAL_ZONES$_S$ entries, delete the excess entries according to the rules specified in 2.6.5.1.5.
- If BYPASS_REG_IND$_S$ is equal to '00', dDelete all entries from SID_NID_LIST$_S$ belonging to a different band class (see [245]) than CDMABAND$_S$.
- Add SID$_S$ and NID$_S$ to SID_NID_LIST$_S$ if not already in the list. If required, include the band class identifier and block identifier for the current band and frequency block designator as specified in 2.6.5.1.5.
- Disable the SID/NID list entry timer for the entry of SID_NID_LIST$_S$ containing SID$_S$, and NID$_S$. For any other entry of SID_NID_LIST$_S$ whose entry timer is not active, enable the entry timer with the duration specified in 2.6.5.1.5.
- If SID_NID_LIST$_S$ contains more than $N_{10m}$ entries, delete the excess entries according to the rules specified in 2.6.5.1.5.
- If MULT_SIDS$_S$ is equal to '0' and SID_NID_LIST contains entries with different SIDs, delete the excess entries according to the rules specified in 2.6.5.1.5.
- If MULT_NIDS$_S$ is equal to '0' and SID_NID_LIST contains more than one entry for any SID, delete the excess entries according to the rules specified in 2.6.5.1.5.
- Set the stored location of last registration (BASE_LAT_REG$_{S\text{-}p}$ and BASE_LONG-_REG$_{S\text{-}p}$) to the base station's location (BASE_LAT$_S$ and BASE_LONG$_S$). Set the stored registration distance (REG_DIST_REG$_{S\text{-}p}$) to the base station's registration distance (REG_DIST$_S$).
- Update its roaming status and set MOB_TERM$_S$ as specified in 2.6.5.3. The mobile station should indicate to the user whether the mobile station is roaming.

2.6.5.5.4.4 Power Off

These procedures are performed when the mobile station is directed by the user to power off.

The mobile station shall perform the following actions:

- If an entry of $ZONE\_LIST_s$ does not have an active timer, copy that entry to $ZONE\_LIST_{s-p}$; otherwise, delete the entry in $ZONE\_LIST_{s-p}$ if $ZONE\_LIST_{s-p}$ contains an entry.
- If an entry of $SID\_NID\_LIST_s$ does not have an active timer, copy that entry to $SID\_NID\_LIST_{s-p}$; otherwise, delete the entry in $SID\_NID\_LIST_{s-p}$ if $SID\_NID\_LIST_{s-p}$ contains an entry.

### 2.6.6 Handoff Procedures

This section presents an overview and mobile station requirements for handoffs occurring while the mobile station is in the *Mobile Station Control on the Traffic Channel State* (see 2.6.4). Mobile station requirements for handoffs occurring while the mobile station is in the *Mobile Station Idle State* are specified in 2.6.2.1.4.

#### 2.6.6.1 Overview

##### 2.6.6.1.1 Types of Handoff

The mobile station supports the following three handoff procedures while in the *Mobile Station Control on the Traffic Channel State*:

- *Soft Handoff*: A handoff in which the mobile station commences communications with a new base station without interrupting communications with the old base station. Soft handoff can only be used between CDMA Channels having identical Frequency Assignments. Soft handoff provides diversity of Forward Traffic Channels and Reverse Traffic Channel paths on the boundaries between base stations.
- *CDMA-to-CDMA Hard Handoff*: A handoff in which the mobile station is transitioned between disjoint sets of base stations, different band classes, different Frequency Assignments, ~~different long code masks,~~ or different frame offsets.
- *CDMA-to-Analog Handoff*: A handoff in which the mobile station is directed from a CDMA traffic channel to an analog voice channel.

The mobile station shall support soft handoffs on the same Frequency Assignment (see 2.6.6.2.7). The mobile station shall support CDMA-to-CDMA hard handoffs between band classes on which it supports CDMA operation (see 2.6.6.2.8). The mobile station shall support CDMA-to-Analog handoffs from band classes on which it supports CDMA operation to band classes on which it supports analog operation (see 2.6.6.2.9).

##### 2.6.6.1.2 Pilot Sets

Within section 2.6.6 the term pilot refers to a Pilot Channel identified by a pilot sequence offset (see [2]), a Walsh function or a quasi-orthogonal function (see [2]), and a Frequency Assignment (see [2]). A pilot is associated with the Forward Traffic Channels in the same Forward CDMA Channel. All pilots in a pilot set have the same CDMA Frequency Assignment.

The mobile station searches for pilots on the current CDMA Frequency Assignment to detect the presence of CDMA Channels and to measure their strengths. When the mobile

- The mobile station shall store the TMSI code by setting $TMSI\_CODE_{s\text{-}p}$ to $TMSI\_CODE_r$.

The mobile station shall set the TMSI expiration time by setting $TMSI\_EXP\_TIME_{s\text{-}p}$ to $TMSI\_EXP\_TIME_r$. The mobile station shall disable the full-TMSI timer. The mobile station shall then respond with a *TMSI Assignment Completion Message* within $T_{56m}$ seconds.

18. *General Page Message* or *Universal Page Message*: If the mobile station receives a mobile-station-addressed page, the mobile station may determine whether there is a page match (see 2.6.2.3). If a match is declared, the mobile station shall perform the following:
    - Layer 3 shall send an L2-Supervision.Request primitive to Layer 2 to abort any access attempt in progress.
    - The mobile station shall enter the *Page Response Substate*.
19. *Extended Channel Assignment Message:* If the $DIRECT\_CH\_ASSIGN\_IND_r$ is included and is set to '1', the mobile station shall perform the following:
    - ~~The mobile station shall set $CONFIG\_MSC\_SEQ_s$ to $CONFIG\_MSC\_SEQ_r$.~~
    - Layer 3 shall send an L2-Supervision.Request primitive to Layer 2 to abort any access attempt in progress.
    - ~~If the stored configuration parameters are current (see 2.6.3.2), t~~The mobile station shall process the message as specified in section 2.6.3.3~~; otherwise, the mobile station shall process the message as specified in section 2.6.3.3 once stored configuration parameters are current.~~

    Otherwise, the mobile station shall ignore this message.
20. *Fast Call Setup Order*:
    - If $ORDQ_r$ is equal to '00000000', the mobile station shall process the message and respond with a *Fast Call Setup Order* as specified in 2.6.12.1.
    - If $ORDQ_r$ is equal to '00000001', the mobile station shall process the message as specified in 2.6.12.1.
21. *Any other message:* If the mobile station receives any other message specified in Table 3.7.2.3-1, it shall ignore all Layer 3 fields. The mobile station shall ignore all other messages.

2.6.4 Mobile Station Control on the Traffic Channel State

In this state, the mobile station communicates with the base station using the Forward and Reverse Traffic Channels.